

What is claimed is:

1. A thermal oxidation decomposition type detoxifying apparatus for an exhaust gas, comprising:

an exhaust gas introducing conduit to introduce exhaust gas;

a reactive unit to which said exhaust gas introducing conduit being connected and having a first reactive chamber kept at a first temperature and a second reactive chamber kept at a second temperature different from the first temperature, said second reactive chamber being disposed in downstream of and adjoined on said first reactive chamber;

an oxidizing gas source adapted to supply an oxidizing gas into said first reactive chamber, said oxidizing gas undergoing thermal oxidation decomposition of said exhaust gas;

a neutralizing gas source adapted to supply a neutralizing gas into said second reactive chamber, said neutralizing gas neutralizing a gas generated by the thermal oxidation decomposition; and

a discharging unit to discharge a processed exhaust gas processed in said reactive unit to exterior of the apparatus.

2. The thermal oxidation decomposition type detoxifying apparatus for an exhaust gas according to claim 1, wherein the exhaust gas is a mixed exhaust gas of SiH_4 and a PFC gas, the oxidizing gas is oxygen, and the neutralizing gas is NH_3 gas.

3. The thermal oxidation decomposition type detoxifying apparatus for an exhaust gas according to claim 2, wherein said PFC gas is one selected from C_2F_6 , CF_4 , etc.

4. The thermal oxidation decomposition type

detoxifying apparatus for an exhaust gas according to claim 1, further comprising a mixing unit to obtain a mixed gas by mixing nitrogen gas into said exhaust gas, said mixing unit being disposed upstream side of said first reactive chamber.

5. The thermal oxidation decomposition type detoxifying apparatus for an exhaust gas according to claim 1, wherein the first temperature is set at 600°C through 700°C, and the second temperature is set at 1100°C or higher.

6. The thermal oxidation decomposition type detoxifying apparatus for an exhaust gas according to claim 1, wherein a first water shower is provided in the flow path of the exhaust gas in the upstream of said first reactive chamber.

7. The thermal oxidation decomposition type detoxifying apparatus for an exhaust gas according to claim 1, wherein a second water shower is provided in the flow path of the exhaust gas in the downstream of the second reactive chamber.

8. A thermal oxidation decomposition type detoxifying method for an exhaust gas, comprising:

introducing an exhaust gas in a reactive unit having a first reactive chamber kept at a first temperature and a second reactive chamber kept at a second temperature different from the first temperature, said second reactive chamber being disposed in downstream of and adjoined on said first reactive chamber;

supplying an oxidizing gas into said first reactive chamber, said oxidizing gas undergoing thermal oxidation decomposition of said exhaust gas;

supplying a neutralizing gas into said second reactive chamber, said neutralizing gas neutralizing a gas generated by the thermal oxidation decomposition; and

discharging a processed exhaust gas processed in said reactive unit to exterior of the reactive unit.

9. The thermal oxidation decomposition type detoxifying method for an exhaust gas according to claim 8, wherein the exhaust gas is a mixed exhaust gas of SiH_4 and a PFC gas, the oxidizing gas is oxygen, and the neutralizing gas is NH_3 gas.

10. The thermal oxidation decomposition type detoxifying apparatus for an exhaust gas according to claim 8, wherein said PFC gas is one selected from C_2F_6 , CF_4 , etc.

11. The thermal oxidation decomposition type detoxifying method for an exhaust gas according to claim 8, further comprising mixing nitrogen gas into said exhaust gas in the upstream side of said first reactive chamber.

12. The thermal oxidation decomposition type detoxifying method for an exhaust gas according to claim 8, wherein the first temperature is set at 600°C through 700°C , and the second temperature is set at 1100°C or higher.

13. The thermal oxidation decomposition type detoxifying method for an exhaust gas according to claim 8, further comprising passing the exhaust gas in a first water shower in the flow path of the exhaust gas at the upstream of said first reactive chamber.

14. The thermal oxidation decomposition type detoxifying method for an exhaust gas according to claim 13, further comprising passing the processed exhaust gas in a second water shower in the flow path of the exhaust gas in the downstream of the second reactive chamber.